

Appendix D: Consolidation of Bull Trout Core Areas on the Lower Clark Fork River



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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MEMORANDUM

To: Assistant Regional Director, Ecological Services, Region 1, Portland, OR
(Attn: Larry Salata, Daniel Brown, Sarah Hall, Patrick Sousa)

From: Field Supervisor, Montana Ecological Services Field Office, Helena, MT

Subject: Consolidation of bull trout core areas on the Lower Clark Fork River

After thoughtful consideration, Region 6 has decided to consolidate several bull trout core areas in the Lower Clark Fork River drainage. At the time the Draft Bull Trout Recovery Plan was developed (circa 2001), four core areas (Clark Fork River Section 3 upstream of Thompson Falls Dam, Lower Flathead River, Noxon Reservoir, and Cabinet Gorge Reservoir) that were artificially fragmented by the presence of Cabinet Gorge, Noxon Rapids, and Thompson Falls Dams were identified as representative of the existing condition. The Bull Trout Recovery Unit Team (RUT) for that area felt that due to habitat limitations bull trout populations in those core areas could not persist in isolation. As a result, the Draft Bull Trout Recovery Plan specifically identified restoration of connectivity as one of the recovery criteria and the Plan treated the unified core area (termed the Lower Clark Fork River Complex) as a single unit for purposes of determining recovered abundance (see Table 3 on page 131 in the Draft Bull Trout Recovery Plan - Chapter 3).

In the past five years the Avista Fish Passage / Native Salmonid Restoration Program, mandated by the 1999 FERC settlement for Cabinet Gorge and Noxon Rapids Dams, has made major progress in reconnecting upstream bull trout passage. They have developed a trap and haul operation with to pass adult bull trout over the dams and use genetic assignments to determine the proper upstream locations for release. Through this program they have documented successful passage of 174 adult bull trout upstream (total for 2001-2005; between 29 and 42 annually). Significantly, some of those bull trout that were passed upstream over Cabinet Gorge and Noxon Dams have been documented successfully spawning in tributary streams, through the use of radio telemetry. While the numbers of bull trout successfully passed may not seem meaningful, due to the fecundity of these large adfluvial fish (i.e., each female carrying several thousand eggs) each fish potentially makes a substantial genetic contribution to the reconnected population. A total of 1,249 juvenile bull trout (between 87 -416 annually), were also captured in 2001-2005 from Montana tributaries and either transported downstream (to the Clark Fork River in Idaho downstream of Cabinet Gorge Dam) or tagged and allowed to volitionally migrate. In 2006, one of those fish PIT tagged as a juvenile was recaptured as an adult at the base of the dam.

As a result of a lawsuit, the Service's 2003 Rock Creek Mine biological opinion was remanded back to us for further consideration (Rock Creek is a small tributary to Cabinet Gorge Reservoir which contains a local population of bull trout). The combination of further scrutiny mandated by the court decision along with the updated analysis presented in the remanded biological opinion, have resulted in a reevaluation of whether the improved connectivity resulting from AVISTA Corporation's fish passage programs at Noxon and Cabinet Gorge dams is now sufficient, in concert with other actions, to consider these fragmented core areas functionally restored to their historically interconnected status. We have determined that doing so is consistent with the best available science and is a natural progression down the path set forth in the Draft Bull Trout Recovery Plan.

Specifically, the Draft Recovery Plan states: "**Lower Clark Fork River** (includes four currently fragmented population segments: Lower Flathead River, Thompson Falls Reservoir, Noxon Reservoir, and Cabinet Gorge Reservoir; these segments are currently treated as separate core areas). Note that these core areas were historically connected and must be functionally rejoined under recovered conditions." In treating the Lower Clark Fork as a single core area in the future, the collective number of local populations currently identified is raised to 14 (7 in the lower Flathead; 2 in the Thompson River; 3 in Noxon Reservoir; and 2 in Cabinet Gorge Reservoir), and the likelihood of meeting recovery goals for abundance and distribution are increased.

A natural progression or continuation of this approach will eventually incorporate the Lower Clark Fork core area into Lake Pend Oreille, fully restoring the natural configuration. However, at this time fish passage is primarily limited to trap and haul at Cabinet Gorge Dam and the majority of fish spawning in the four former core areas are still fluvial or adfluvial fish that reside in the reservoirs. In recent years, approximately 100 bull trout redds have been identified annually in the consolidated Lower Clark Fork core area, with up to 15-20% of those redds likely constructed from fish that were passed over the dams. In balance, the fish passage program is now making substantial contributions annually to genetic connectivity. However, full numerical contributions to two-way connectivity with Lake Pend Oreille will not be realized until Cabinet Gorge passage is fully developed and additional passage is implemented at the upstream dams (Noxon Rapids and Thompson Falls) in the next few years. The Avista program is continuing to evolve and expanded passage at Thompson Falls is anticipated through similar cooperative efforts of PPL Montana.

We also anticipate that, in the near future, the removal of Milltown Dam near Missoula (currently scheduled for the spring of 2008 as a result of Superfund cleanup) will result in a similar consolidation of core areas in the upper portion of the Clark Fork River.

It is important for the Regional Office to recognize that identification of bull trout core areas will continue to be an iterative and dynamic process as barrier removal progresses and studies across the range continue to improve our understanding of migratory connectivity. For that reason, the Bull Trout Recovery Program leaders should keep an accurate accounting of these changes as they are proposed by the field in order to oversee consistency in this approach.

Please contact Wade Fredenburg of my staff at 406/758-6872, if you have any questions pertaining to this matter.